

Customer No.:31561
Application No.: 10/707,683
Docket No.: 11846-US-PA

REMARKS

Present Status of the Application

The Office Action rejected claims 1, 3 and 5 under 35 U.S.C. 102(b), as being anticipated by Venkateshwaran et al. (US 6, 339,254). The Office Action also rejected claims 2 and 4 under 35 U.S.C. 103(a) as being unpatentable over Venkateshwaran et al. (US 6, 339,254).

Applicant has amended claim 1 to more clearly define the present invention. The limitation added in claim 1 is shown in Fig. 3, and no new matter is entered. After entry of the foregoing amendments, claims 1-5 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Rejection under 35 U.S.C 102 (b)

Applicant respectfully traverses the 102(b) rejection of claims 1, 3 and 5 because Venkateshwaran et al. (US 6, 339,254) does not teach every element recited in these claims.

In order to properly anticipate Applicants' claimed invention under 35 U.S.C 102, each and every element of claim in issue must be found, "either expressly or inherently described, in a single prior art reference". "The identical invention must be shown in as complete details as is contained in the claim. Richardson v. Suzuki Motor Co., 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." See M.P.E.P. 2131, 8th ed., 2001.

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The present invention is in general related a chip package structure as claim 1 recites:

1. A chip package structure, comprising:
 - a carrier;
 - a chip, having an active surface with a plurality of bumps thereon, wherein the active surface of the chip is bonded to the carrier using a flip-chip bonding technique so that the chip and the carrier are electrically connected; and
 - an encapsulating material layer, covering the chip and the carrier and filling the bonding gap between the chip and the carrier, wherein the encapsulating material layer between the chip and the carrier has a first thickness and the encapsulating material layer on the chip has a second thickness such that the second thickness is between 0.5 ~ 2 times the first thickness,

wherein the chip package structure has the only one chip therein and the chip is covered by the encapsulating material layer such that the chip in the chip package structure is enclosed by the encapsulating material layer.

Venkateshwaran teach a package structure, as shown in Figs. 4 and 6, including a substrate 610, a die 402 over the substrate 610, a die 401 over the die 402 and a underfill material 410, wherein the die 402 is electrically connected to the substrate 610 through the bump terminals 412 while the die 401 is electrically connected to the substrate 610 through the bump terminals 411 (see col. 3, line 66- col. 5, line 15). Therefore, the package structure of Figs. 4 and 6 has two dies 402, 401 therein, and the top surface of the die 401 is not covered by the underfill material 410.

However, in claim 1 of the present invention, the chip package structure has only one chip therein and the chip is covered by the encapsulating material layer such that the chip in the chip package structure is enclosed by the encapsulating material layer. Venkateshwaran fails to teach the feature as above mentioned, and thus Venkateshwaran does not teach every element recited in claim 1.

For at least the foregoing reasons, Applicant respectfully submits that independent

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claim 1 patently define over the prior art reference, and should be allowed. For at least the same reasons, dependent claims 3 and 5 patently define over the prior art as a matter of law.

Rejection under 35 U.S.C 103 (a)

The Office Action rejected claims 2 and 4 under 35 U.S.C. 103(a) as being unpatentable over Venkateshwaran et al. (US 6, 339,254). Applicant respectfully traverses the rejections for at least the reasons set forth below.

Applicant submits that, as disclosed above, Venkateshwaran fails to teach or suggest each and every element of claim 1 from which claims 2 and 4 depend. Because independent claim 1 patently define over the prior art reference, and should be allowed. For at least the same reasons, dependent claims 2 and 4 patently define over the prior art as a matter of law, for at least the reason that these dependent claims contain all features of their respective independent claim.

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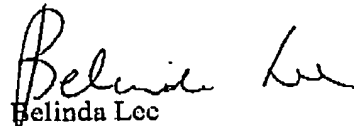
CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,


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